

## **Magneto-Optical Switching Backplane for Microprocessor Interconnection**

### **ABSTRACT OF THE INVENTION**

5 A system and method are disclosed for an optical backplane in an electronic  
processor that comprises of a plurality of processing units. The backplane is comprising  
of a network of optical waveguides which can guide polarized light. Furthermore, the  
backplane has magneto optic routers for steering light at the vertexes of the network, and  
the backplane also has optical devices for operationally connecting the processing units to  
10 the network. The backplane network affords an optical interconnection amongst all of the  
processing units.